

4.0 RECOMMENDED MANAGEMENT/ADMINISTRATIVE STRATEGIES

Management and administrative strategies relate to the oversight and management of Lunken Airport. The management/administrative actions consist of revisions to times and locations of engine run-ups, the installation of noise deflectors at strategic locations, and an extensive pilot communication program to advise pilots of Lunken Airport's revised and updated noise reduction program.

4.1 EDUCATIONAL STRATEGIES

4.1.1 Pilot Communication

Chapter 2.0 (Volume II) discussed the alternatives that are heavily influenced by pilots operating their aircraft within Lunken airspace and over surrounding communities. Effectively communicating revised noise mitigation programs to pilots will significantly enhance the airport's Noise Abatement Program. Communicating arrival/departure noise abatement procedures via flyers, brochures, maps, posters and other communiqués in lounges, nearby hotels, flight training schools, airport restaurants and place of work, will sensitize pilots to community noise concerns. This strategy is relatively inexpensive and involves the Lunken Airport management's ongoing efforts to inform, educate, and remind pilots of the procedures.

4.1.2 Signage

Installing signage at focal points on the airfield area will further assist Lunken Airport in its efforts to remind pilots of the noise abatement procedures now active at the Airport. These signs can either be inscribed with symbols and colors that refer to abatement procedures described in the brochures and posters or graphics easily depicting the abatement flight paths. The background of these signs should be in yellow, with inscriptions appearing in black.

Signs must follow FAA Part 77 Surface Restrictions, Obstacle Free Zones, building restriction controls and frangible material components in order to meet FAA airfield standards. At Lunken Airport, the noise abatement signs will be located:

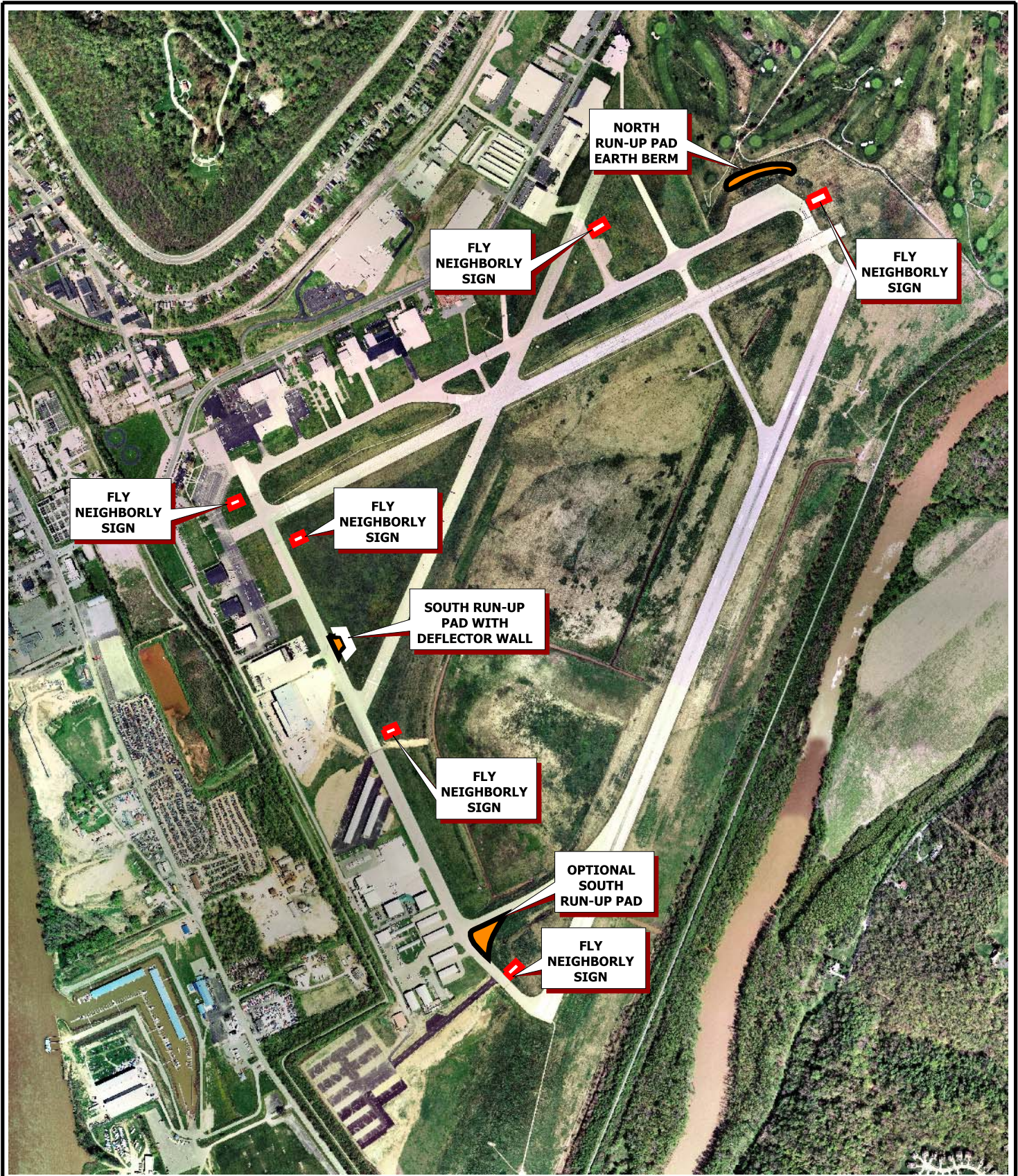
1. West of Runway 3R and north of Taxiway C.
2. East of Runway 3L and north of Taxiway C.
3. East of Runway 7 and north of Taxiway C.
4. West of Runway 7 and south of Taxiway C.
5. East of Runway 21R west of the run-up pad.
6. West of Runway 25 and north of Taxiway A.

This strategy is relatively inexpensive and involves the Lunken Airport management's ongoing efforts to inform, educate, and remind pilots of the procedures. Refer to **Exhibit 4.1-1**.

4.2 FAA/AIRPORT AGREEMENTS

4.2.1 Approach Plate Modification

Requesting the FAA to establish "Charted VFR Approach Corridors" for Lunken Airport will ensure that the noise abatement procedures are included as part of the normal Instrument Landing System operating procedure. The purpose of this noise mitigation alternative is to provide an alternative instrument approach procedure for pilots that are navigating on an instrument flight plan under visual weather conditions. Frequently during visual weather conditions, pilots approach Lunken Airport using IFR flight plans and in order to save time and keep from flying the straight-in instrument approach procedure for Runway 21L, pilots will cancel their IFR flight plan, and fly a visual route directly to Runway 3R/21L. This procedure typically results in the aircraft flying over the residential areas surrounding Lunken Airport.



Several major FAA Class B Airspace Control Zones similar to the CVG Class B airspace have both fixed-wing and rotary-wing “*Chartered VFR Approach Corridors*”. These special Class B airspace operating procedures are considered instrument operations under visual weather conditions. As an example, the New York City Class B Airspace has both fixed-wing and rotary-wing Chartered VFR approach and departure procedures along the Hudson River for aircraft going to and from the three major airports and the three public use heliports on Manhattan Island.

The potential Lunken Airport FAA Chartered VFR Approach Corridor would establish visual instrument procedures for aircraft arriving to Runway 3R/21L from the west utilizing the Norwood Lateral radial and intersect a point one and a half miles on the extended centerline of Runway 21L. From the east, aircraft would follow a radial from the Little Miami River Valley and also intersect a point one and one half miles on the extended centerline of Runway 21L.

This Chartered VFR Approach procedure is only for pilots navigating on an IFR flight plan under visual weather conditions. Under IFR weather conditions, pilots approaching Lunken will utilize FAA published instrument approach procedures.

4.2.2 Pursue 24 Hour Operation Of The Lunken Air Traffic Control Tower

The Air Traffic Control (ATC) tower manages aircraft traffic from the airport from a radius of three to 30 miles out. The Tower gives pilots taxiing and take-off instructions, air traffic clearance, and advice based on their own observations and experience.

The air traffic controllers provide separation between landing and departing aircraft, transfer control of aircraft to the enroute center controllers when the aircraft leave their airspace, and receive control of aircraft on flights coming into their airspace.

The ATC tower is manned only during the hours of 7:00 a.m. to 11:00 p.m. Pursuing a 24-hour operation would enable the ATC to continuously control aircraft flight procedure. The benefit of this strategy would allow 24-hour oversight of noise mitigation procedures. A negative aspect of this strategy would be that the action would not be an FAA eligible noise mitigation strategy. The cost of the implementation would also be a negative aspect.

4.3 ALTERATIONS TO THE AIRPORT FACILITIES

4.3.1 Aircraft Engine Maintenance/Run-Up Pads

Residents living in the communities surrounding the south and western hillsides of Lunken Airport have complained about sustained high pitch throttling noise of aircraft engines. This occurs when aircraft are undergoing engine repair, normal maintenance tune ups, and also aircraft run-ups just before take-off at the end of the runway.

In order to reduce this noise, additional engine run-up pads should be constructed at appropriate locations on the airfield. One such location should be north of Taxiway C west of Runway 3L. A second option should be at the corner of Taxiway C and taxiway B near Runway 3R. With these run-up pads aircraft may perform their maintenance run-ups with their engines placed in a northerly direction thereby restricting noise to the airfield area only.

To further reduce noise, deflectors can be constructed around the west, north and east perimeter of the run-up pads. These deflectors which are constructed of galvanized steel will disperse the noise upward further restricting the noise to the airfield area.

The negative aspect of this strategy is cost, which is approximately \$453,000.

4.3.2 Berms

Following a similar formula of deflecting noise from aircraft engine maintenance run-ups, noise berms that conform to FAA airfield designation can be used to enclose run-up pads. It is suggested that a seeded earth berm be constructed around the run-up pad on Taxiway A adjacent to Runway 25. This earth berm would control aircraft engine run-up noise for the aircraft operators along Wilmer Avenue. It would be covered with thick ground cover and dense shrubbery on the top. The cost of this strategy would be approximately \$150,000.

4.4 LIMITATION STRATEGIES

The implementation of a nighttime curfew would not only reduce noise but significantly restrict the activity at Lunken Airport. It means placing constraints on the type or number of aircraft that operate at the Airport or the time of day (which is nighttime) that certain activities can occur. However, any airport activity restriction must:

1. Be justified on the basis of a demonstrable noise problem;
2. Not place an undue burden on interstate commerce;
3. Not discriminate among types of airport users;
4. Not intrude into an area where the federal government clearly has preemptive authority; and
5. Conform to the airport proprietor's grant assurances.

4.4.1 Night Time Curfew

Although there are several types of use restrictions, the nighttime curfew restriction has been specifically mentioned. The FAA has established FAR 161 to assist airport operators in reviewing and establishing airport use restrictions. In order to formally implement an airport use restriction, an airport must have the voluntary cooperation of all existing and potential airport users.

A nighttime curfew would involve completely banning or restricting aircraft activities based on the time of occurrence (i.e. during nighttime hours). Since Lunken Airport is designated as a reliever airport to Cincinnati/Northern Kentucky International Airport (CVG), all general aviation and corporate activity in the metropolitan region is performed. Restricting Lunken Airport would force these activities to be diverted to CVG, thereby clustering and hampering the capacity of CVG and its airspace. This strategy is not recommended.

4.4.2 Restricting Flight Training

The restriction of flight training activities on weekdays and weekends between 10:00 p.m. – 7:00 a.m. is a common use restriction at many general aviation airports. This would entail the elimination of touch and go operations during the hours of 10:00 p.m. to 7:00 a.m. Lunken Airport would assign staff to implement and monitor this use restriction mitigation program, and establish an on-going Noise Abatement Advisory Committee. This strategy would also review the FAR Part 150 program measures in the future if, or when, significant changes to operations at the Lunken Airport occur. Similar to the procedure described in Section 4.4.1, this strategy is not recommended.

4.5 OTHER MANAGEMENT/ADMINISTRATIVE STRATEGIES

4.5.1 Employ Noise Abatement Officer

The employment of a Noise Abatement Officer at Lunken Airport will enhance the effectiveness of the Noise Abatement Program. The individual will oversee the entire program and would continue to monitor and respond to complaints both verbally and in writing. The officer will represent Lunken Airport in noise matters at Lunken Airport and community meetings. The officer will also be responsible for keeping detailed records of aircraft noise, monitoring operational, remedial and land use management programs as well as disseminating information to Lunken Airport staff and the community.

4.5.2 Community Awareness Programs

Lunken Airport should develop a community outreach program. Its main objective would be to inform the public and specifically the surrounding communities on the status of the Noise Compatibility Program, its updates and upcoming activities. The program should disseminate information regarding the noise environment through occasional announcements, postings of public notices, informational packets, brochures, and Airport Newsletters. Having a community awareness program link on Lunken Airport's website can also be used as a dialogue tool with the public in disseminating and retrieving information.

4.5.3 Airscene Tracking System

The Airscene Flight Tracking System "Airscene" is a new innovative tool developed by the Rannoch Corporation to track aircraft flights both in the air and on the ground. This will enable the airport proprietor to identify and manage noise conflicts in the surrounding communities. Information available includes exact aircraft tail numbers ascertained in real-time and aerial photograph images of flight arrivals, departures and over flights. With the additional use of a compatible flight track display software it allows viewers to see what is taking place above a specific geographic area as well as displaying aircraft altitude and groundspeed. The Airscene also features a web-accessible address lookup whereby property residents can pinpoint their specific address and call up information on aircraft flight tracks from current and historical time frames.

Lunken Airport has purchased and installed "Airscene". The real time data received through Airscene has enabled airport staff to more expeditiously and accurately respond to and investigate aircraft noise complaints. The basic single antenna Airscene System installed in 2001 identifies aircraft landing and taking-off from the Airport.

Lunken Airport is now in the process of expanding the capabilities of Airscene to identify aircraft within a 5 to 7 mile radius of the Airport by adding multiple antennas in

surrounding neighborhoods. Antennas will be installed on towers in Anderson Township, Indian Hill, Norwood, and Taylor Mill in Northern Kentucky to acquire aircraft data in a full 360 degree range. The Airport is targeting an April 2004 completion of the Airscene System expansion project.

Additionally, the Airport has negotiated an arrangement with the Rannoch Corporation to add noise-monitoring capabilities to the Airscene System. Five noise monitors will be permanently installed at strategic neighborhood locations, including one on the Airport, to monitor aircraft noise on a 24-hour basis. Other proposed monitoring locations are Kilgore School in Mt. Lookout; the Park in Fairfax; California community baseball fields; the Water Tower in Mt. Washington and a site under study in Fort Thomas, Kentucky. This will provide Airport staff with the ability to better research noise complaints by comparing actual noise data with aircraft location and identification information provided by Airscene.